

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002538**Date Inspected:** 22-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chih-Ming, An Qingxiang			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** OBG side and bottom panels and tower skin p**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC qualified welding personnel performing a Critical Weld Repair (CWR) on SP-028A to SP-020A joint# SEG-019A-002 following the guide lines of approved CWR procedure# B-CWR-096. Apparently this weld was Ultrasonically Tested (UT) by ZPMC Quality Control (QC) UT technicians and found to be non-compliant with AWS D1.5 2002 acceptance criteria and the contract documents for the full length of the joint. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 28 Amps: 260 Travel speed: 500mm/min

QA noted that bottom panel BP-003 to BP-002 joint# SEG-013A-004 also appears to have been rejected by ZPMC QC UT technicians for its full length and has been excavated, cleaned and ready to be repaired by welding.

QA observed ZPMC qualified welding personnel FCAW welding cross brace connection plates on floor beam center section (FL2) Joint# SSD14-PP025-136 following the guide lines of WPS-B-T-2233-TC-U4b-F. QC

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monitored the welding process continuously until its completion. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 25.5 Amps: 210 Travel speed: 116mm/min

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

New Tower Bay 1

QA observed ZPMC personnel tack welding skin plate joint# SSD1-SA178C/D-17, 11A, 15, 10A, 8, 14, 5 and 25A. QA observed no other welding in this bay at the time QA was present.

New Tower Bay 2

QA observed ZPMC qualified welding personnel preheating tower skin plate joint# ESD1-SA294A/G-4A in preparation for SAW welding. ZPMC had not started welding on this joint before the end of QA's shift.

Other general observations in the New Tower bays include ZPMC tack welding tower skin plates, weld bevel preparation, flame straightening, CNC parts cutting, hole drilling and grinding.



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Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
